#### Attachment 1

# **Audit of Lamp Sampling/Shipping**

#### **Introduction:**

Lamps for the study were procured in two ways. New lamps were purchased from various suppliers in Maine and New Hampshire according to SOP P1 by two DEP staff, Peter Moulton and Enid Mitnik. The goal for new lamps was to purchase seven lamps from each of four different "production batches" for each lamp model manufactured in 2000-2001. Used lamps were donated by Northeast Lamp Recycling. These lamps were set aside by Ray Graczyk according to specifications listed on the Comparability Criteria and Lamp Specifications chart provided by Deb Stahler. The goal for used lamps was to set aside 10 lamps from each lamp model with the most recent manufacture date.

## **Communications:**

Peter Moulton and Enid Mitnik were provided with the SOP P1 and briefed about the project by Deb Stahler. All read the SOP. They were in daily communication with Deb Stahler regarding sampling issues. Peter developed a purchasing chart to track the number of lamps purchased for each lamp model and production batch which was posted for review by Enid and Deb.

Peter Moulton contacted Terry Grover, United States Post Office [USPS] Portland office to purchase shipping boxes for the lamps. Boxes were provided free of charge for this project by the USPS who delivered them to DEP.

Ray Graczyk and Deb Stahler were in both telephone and e-mail contact weekly throughout the used lamp collection period.

# **Procurement trips:**

## **New Lamps:**

Peter Moulton and Enid Mitnik drove to electrical supply houses after calling to make sure appropriate lamps were available from the supplier. Seven lamps for each model/production batch were labeled according to a predetermined list [Sample ID Form] supplied by Deb Stahler. The Sample ID Form was reviewed by Peter, Enid, and Deb prior to procurement. The list showed the lamp sample number, lamp model, lamp description, production batch number [1-4], and had a space for the sampler to fill in the production batch number listed on the lamp/ lamp box. Production batch number was documented on the Sample ID Form and box tops from all batches containing model and production batch numbers were collected by the samplers, and given to Deb Stahler to be saved as part of the sampling documentation.

## **Used Lamps:**

Lamps meeting the description [to the extent possible] on the Comparability and Lamp Specification chart were placed in a shipping container in a room separate from the recycling activities of Northeast Lamp Recycling. Deb Stahler traveled to the CT facility 2/13/2001 to evaluate the lamps collected, and to label the lamps according to the Sample ID Form. Lamps were labeled and placed into shipping boxes according to pre-printed chain of custody forms organized to better manage groups of lamps for analysis.

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Production batch numbers were documented on the Sample ID Forms. Also, when lamp models differed from the target model listed on the Comparability and Lamp Specification chart, the procured model was documented on the Sample ID Form.

## **Packing and Shipping Lamps:**

**Used lamps** were packaged into shipping boxes at Northeast Lamp Recycling Facility by Deb Stahler and transported ME DEP via truck. All boxes were opened and inspected prior to shipment. Chain of Custody forms were inspected and signed, and custody seals were placed on lamp boxes, which were then sealed for shipment with packing tape. Shipping labels and fragile stickers were placed on all boxes, and all were taken to the USPS in Augusta, ME for shipment to Veritech Laboratories.

New lamps were packaged into proper shipping boxes at ME DEP by Enid Mitnik and Peter Moulton. All boxes were inspected by Deb Stahler according to the Chain of Custody forms and Sample ID Form. Chain of Custody forms were signed and placed in the box, then custody seals were placed on lamp boxes which were then sealed for shipment with packing tape. Shipping labels and fragile stickers were placed on all boxes, and all were taken to the USPS in Augusta, ME for shipment to Veritech Laboratories.

**Findings:** All lamp boxes were inspected [as above] by Deb Stahler March 16, 2001. **New lamps:** 

- Verified--four production batches for each target lamp model were purchased.
- Verified--all lamps were produced in year 2000 or 2001.
- Verified--all lamps were labeled correctly according to the Sample ID Form.
- Verified--all packages contained the appropriate lamps according to the Chain of Custody forms.
- Verified--all lamps were packaged and shipped according to protocol in the sampling SOP P1.
- Proper documentation [Sample ID Form, Chain of Custody, Box tops from purchased lamps] was verified.

## **Used Lamps:**

- Several of the target lamp models were unavailable, probably because these models have not been in use long enough to end up at a lamp recycling facility.
- Many lamps were produced prior to year 2000.
- Verified--all lamps were labeled correctly according to the Sample ID Form.
- Verified--all packages contained the appropriate lamps according to the Chain of Custody forms.
- Verified--all lamps were packaged and shipped according to protocol in the sampling SOP P1.
- Proper documentation [Sample ID Form, Chain of Custody] was verified.